



[7590-01-P]

## NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-295 and 50-304; NRC-2011-0244]

### **ZIONSOLUTIONS, LLC**

#### **Zion Nuclear Power Station, Units 1 and 2**

#### **Exemption from Certain Security Requirements**

### **1.0 Background**

Zion Nuclear Power Station (ZNPS or Zion), Unit 1, is a Westinghouse 3250 MWt Pressurized Water Reactor, which was granted Operating License No. DPR-39 on October 19, 1973, and subsequently shut down on February 21, 1997. Zion, Unit 2, is also a Westinghouse 3250 MWt Pressurized Water Reactor, which was granted Operating License No. DPR-48 on November 14, 1973, and was shut down on September 19, 1996. Zion is located in Lake County, Illinois.

In February 1998, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(a)(1)(i), the licensee certified to the U.S. Nuclear Regulatory Commission (NRC or the Commission) that as of February 13, 1998, operations had ceased at Zion, Units 1 and 2. The licensee later certified, pursuant to 10 CFR 50.82(a)(1)(ii), that all fuel had been removed from the reactor vessel of both units, and committed to maintain the units in a permanently defueled status. Therefore, pursuant to 10 CFR 50.82(a)(2), operations at Zion are no longer authorized under the 10 CFR Part 50 licenses.

On September 1, 2010, the facility license was transferred from Exelon to *ZionSolutions* for the express purpose of expediting the decommissioning of the site. *ZionSolutions* intends to use a process that will reduce the labor-intensive separation of contaminated materials and transport the facility in bulk to the *EnergySolutions* disposal site in Utah. Preparations for

decontamination and dismantlement have begun. Completion of fuel transfer to the independent spent fuel storage installation (ISFSI) is scheduled for 2014. Final site survey and license reduction to the ISFSI is currently planned for 2020.

## **2.0 Request/Action**

Section 50.54(p)(1) of Title 10 of the Code of Federal Regulations states, "The licensee shall prepare and maintain safeguards contingency plan procedures in accordance with Appendix C of Part 73 of this chapter for affecting the actions and decisions contained in the Responsibility Matrix of the safeguards contingency plan."

Part 73 of Title 10 of the Code of Federal Regulations, "Physical Protection of Plant and Materials," provides, "This part prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used." In Section 73.55, entitled "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," paragraph (b)(1) states, "The licensee shall establish and maintain a physical protection program, to include a security organization, which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety."

The NRC revised 10 CFR 73.55, in part to include the preceding language, through the issuance of a final rule on March 27, 2009. The revised regulation stated that it was applicable to all Part 50 licensees. The NRC became aware that many Part 50 licensee's with facilities in decommissioning status did not recognize the applicability of this regulation to their facility. Accordingly, the NRC informed licensees with facilities in decommissioning status and other stakeholders that the requirements of 10 CFR 73.55 were applicable to all Part 50 licensees.

By letter dated August 2, 2010, the NRC informed *ZionSolutions* of the applicability of the revised rule and that it would have to comply with the revised rule or request an exemption.

By letter dated December 2, 2010, *ZionSolutions* responded to the NRC's letter and requested exemptions from certain security requirements in 10 CFR Part 73.

### **3.0 Discussion**

Pursuant to 10 CFR 73.5, "Specific exemptions," the Commission may grant exemptions from the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

The NRC evaluated the proposed exemptions and documented the review in a Safety Evaluation which contains security related information and has been withheld from public disclosure pursuant to 10 CFR 2.390(d)(1)

On the basis of Commission policy, NRC security orders, and ongoing staff activities, the Commission determined the following requested exemptions to the current 10 CFR 73.55 are approved; Target Sets, Insider Mitigation Program, Waterway Approaches, Owner Controlled Areas Searches, PA Searches, Weapons Training, and Personnel Equipment.

These exemptions meet the high assurance requirements and the general performance objectives of 10 CFR 73.55 considering the permanently shut down and defueled conditions at the ZNPS where all of the nuclear fuel is located within the spent fuel pool. With respect to the proposed exemption requests: (1) there is reasonable assurance that the health and safety of the public will not be endangered by granting said exemptions; (2) such activities will be conducted in compliance with the Commission's regulations and orders; and (3) the approval of these exemptions will not be inimical to the common defense and security or the health and safety of the public. Accordingly, the staff has determined that, pursuant to 10 CFR 73.5, these exemptions are authorized by law and are otherwise in the public interest.

#### **4.0 Conclusion**

Accordingly, the Commission has determined that, pursuant to 10 CFR 73.5, an exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest based on permanently shut down and defueled conditions at the ZNPS. Therefore, the Commission hereby grants *ZionSolutions* an exemption from the requirements of 10 CFR Part 73 delineated in §§ 73.55(b)(4), 73.55(f), 73.55(i)(5)(vi), 73.55(b)(9), 73.55(e)(10)(ii), 73.55(h)(2), 73.55(h)(3)(i), and Appendixes B.III and B.V.

Part of this licensing action meets the categorical exclusion provision in 10 CFR Part 51.22(c)(25), as part of this action is an exemption from the requirements of the Commission's regulations and (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought involve safeguard plans. Therefore, this part of the action does not require either an environmental assessment or an environmental impact statement.

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact related to part of this exemption was published in the *Federal Register* on October 21, 2011 (76 FR 65541). Based upon the environmental assessment, the Commission has determined that issuance of this exemption will not have a significant effect on the quality of the human environment.

These exemptions are effective immediately.

Dated at Rockville, Maryland, this 10<sup>th</sup> day of November 2011.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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